

Joint Research Centre

Certified reference materials for metal speciation



Methylmercury in fish and sediment

Code	Certified values	
BCR-463 Tuna fish 15 g powder	total Hg [mg/kg] CH ₃ Hg ⁺ [mg/kg]	2.85 ± 0.16 3.04 ± 0.16
ERM-CE464 Tuna fish 15 g powder	total Hg [mg/kg] CH ₃ Hg ⁺ [mg/kg]	5.24 ± 0.10 5.50 ± 0.17
ERM-CC580 Estuarine sediment 40 g powder	total Hg [mg/kg] CH ₃ Hg ⁺ [μg/kg]	132 ± 3 75 ± 4

Lead, chromium and arsenic species

Code	Certified values		
BCR-605 Urban dust 15 g powder	Trimethyllead	[μg/kg]	7.9 ± 1.2
BCR-545 Welding dust loaded on a filter	Cr(VI) total leachable Cr	[g/kg] [g/kg]	40.2 ± 0.6 39.5 ± 1.3
ERM-BC211 Rice 10 g powder	Total As Dimethylarsinic acid Arsenite + arsenate	[μg/kg] [μg/kg] [μg/kg]	260 ± 13 119 ± 13 124 ± 11
BCR-627 Tuna fish tissue 10 g powder	Arsenobetaine Dimethylarsinic acid Total As	[μmol/kg] [μmol/kg] [mg/kg]	52 ± 3 2.0 ± 0.3 4.8 ± 0.3

Confidence in measurements

All certificates and detailed production information can be found at <https://crm.irmm.jrc.ec.europa.eu>

<https://ec.europa.eu/jrc/>

Organotin species in sediment and mussel tissue

	BCR-462 Coastal sediment [µg/kg]	BCR-646 Freshwater sediment [µg/kg]	ERM-CE477 Mussel tissue [mg/kg]
Tributyltin (TBT)	54 ± 15	480 ± 80	2.20 ± 0.19
Dibutyltin (DBT)	68 ± 12	770 ± 90	1.54 ± 0.12
Monobutyltin (MBT)		610 ± 120	1.50 ± 0.28
Triphenyltin (TPhT)		29 ± 11	
Diphenyltin (DPhT)		36 ± 8	
Monophenyltin (MPhT)		69 ± 18	

How to order reference materials

From JRC in Geel

Tel.: +32 14 571 705 • Fax: +32 14 590 406 • <https://ec.europa.eu/jrc/en/reference-materials> • E-mail: jrc-irmm-rm-distribution@ec.europa.eu

From authorised distributors

LGC Standards GmbH (DE)
<http://www.lgcstandards.com/>
 E-mail: de@lgcstandards.com

Sigma-Aldrich RTC Inc. (USA)
<http://www.RT-Corp.com>
 E-mail: RTCSalesgroup@sial.com

Industrial Analytical (RSA)
<http://www.industrialanalytical.co.za>
 E-mail: info@industrialanalytical.co.za

Sigma-Aldrich Chemie GmbH (CH)
<http://www.sigmaaldrich.com/irmm>
 E-mail: flukatec@sial.com

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